Amendments to the Claims

The listing of claims set forth below will replace all prior versions and listings of claims in the application.

1. (Currently Amended) Dermal application system, which is a self-adhesive matrix system, characterised in that the polymer matrix contains a crystallinic aminolaevulinic acid salt or a crystallinic aminolaevulinic acid ester ~~derivative~~ (ALA derivative), wherein the crystals of the ALA derivative have a size of less than approximately 200 μm.

2. (Original) Application system according to claim 1, characterised in that the polymer system is water-permeable.

3. (Original) Application system according to claims 1 and 2, characterised in that the polymer matrix is selected from polymers from the group consisting of

a) acrylates,
b) silicon polymers and
c) polyisobutylene.

4. (Original) Application system according to claims 1 to 3, characterised in that the crystals of the ALA derivative have a (mean) diameter of 30 μm to 190 μm.

5. (Original) Application system according to claim 4, characterised in that the crystals of the ALA derivative have a (mean) diameter of 90 μm to 160 μm.

6. (Original) Application system according to claims 1 to 5, characterised in that the aminolaevulinic acid derivative is present in a concentration of 1 to 50 wt. % relative to the finished polymer matrix.

7. (Original) Application system according to claims 1 to 6, characterised in that the crystals of the ALA derivative have a diameter of 30 to 190 μm and the polymer matrix consists of Eudragit

NE (NE) and acetyl tributyl citrate (ATBC) in the weight ratio NE/ATBC of 1:0.5 to 1:2.5, wherein the aminolaevulinic acid derivative is present in a concentration of 1 to 50 wt. % relative to the finished polymer matrix.

8. (Original) Application system according to claim 7, characterised in that the crystals of the ALA derivative have a diameter of 90 to 160 μm.

9. (Original) Application system according to claims 1 to 8, characterised in that it releases at least 30% of the ALA derivative within 30 minutes.

10. (Original) Application system according to claims 1 to 9, characterised in that the ALA derivative is a compound of the general formula $R^2{}_2N\text{-}CH_2COCH_2COOR^1$, wherein R^1 is an alkyl residue, which is optionally substituted by a hydroxy, alkoxy, alkyloxy, alkoxycarbonyloxy, amino, aryl, oxo, or fluoro group and optionally interrupted by oxygen, nitrogen, sulfur, or phosphorous atoms, and each of R^2 independently from one another represents a hydrogen atom or a group like R^1, or a salt thereof.

11. (Original) Application system according to claim 10, characterised in that the aryl group is a phenyl residue or a monocyclic 5 to 7 membered heteroaromatic residue.

12. (Original) Application system according to claim 10 or 11, characterised in that R.sup.1 is an unsubstituted alkyl group.

13. (Original) Application system according to claims 10 to 12, characterised in that the alkyl group has 1 to 10 carbon atoms.

14. (Original) Application system according to claims 10 to 13, characterised in that the ALA derivative is 5-amino levulinic acid methyl ester, 5-amino levulinic acid ethyl ester, 5-amino levulinic acid propyl ester, 5-amino levulinic acid butyl ester, 5-amino levulinic acid pentyl ester, 5-amino levulinic acid hexyl ester, 5-amino levulinic acid heptyl ester, 5-amino levulinic acid octyl ester, or a pharmaceutically acceptable salt thereof.

15. (Original) Application system according to claims 10 to 14, characterised in that the ALA derivative is a mixture of different ALA derivatives.

16. (Original) Application system according to claims 1 to 15, characterised in that it further contains crystallinic aminolevulinic acid (ALA).

17. (Original) Application system according to claim 16, characterised in that the ALA crystals have a (mean) diameter of 30 to 190 μm.

18. (Original) Application system according to claim 17, characterised in that the ALA crystals have a (mean) diameter of 90 μm to 160 μm.

19. (Original) Method for preparation of the application system according to claims 1 to 18, characterised in that freeze-dried Eudragit NE (NE) with acetyl tributyl citrate (ATBC) is dissolved in acetone, in the NE/ATBC ratio of 1:0.5 to 1:2.5, after which ground ALA derivative in the particle size range of less than approximately 200 μm is dispersed in the acetone solution and the dispersion thus obtained is drawn to produce a thin film on a cover foil, and dried for 45 minutes at 60°C.

20. (Original) Method according to claim 19, characterised in that a mixture of different ALA derivatives, or a mixture of one or several ALA derivatives with ALA, is used instead of one ALA derivative.

21. (Original) Use of an application system according to claims 1 to 18 in photodynamic therapy and/or diagnosis of pre-cancerogenic and carcinogenic lesions of the skin.

22. (Original) Use of an application system according to claims 1 to 21 in photodynamic therapy and/or diagnosis of basaliomas.